KENWOOD

AUDIO VIDEO STEREO RECEIVER

KR-V8070

INSTRUCTION MANUAL

KENWOOD CORPORATION

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

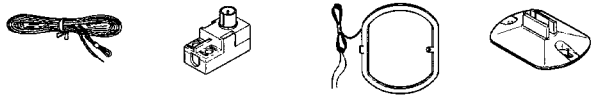
Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost. Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

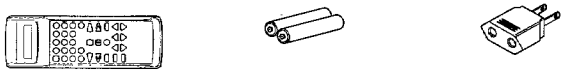
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories

FM indoor antenna (1) FM antenna adoptor (1) AM loop antenna (1) Loop antenna stand (1)



Remote control unit (1) Batteries (R6/AA) (2) *AC plug adaptor (1)



* Use to adapt the plug on the power cord to the shape of the wall outlet. (Accessory only for regions where use is neccissary.)

B60-1828-20 (SI) (K,P,M,X,Y) [MC]

Before applying power

Units are designed for operation as follows.

U.S.A., Mexico and Canada ..... ***AC 120 V only***
Australia ..... ***AC 240 V only***

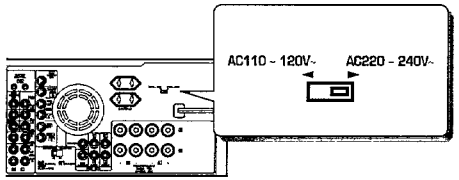
Other countries ..... ***AC 110-120/220-240 V switchabl***

AC voltage selection

The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

AC voltage selector switch



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Safety precautions

WARNING : TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

For the U.S.A.

FCC WARNING
This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio / TV technician for help.

For the U.S.A.

Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Special features

DOLBY PRO LOGIC & DOLBY 3 STEREO

The surround system reproduces video software programes carrying the [DOLBY SURROUND] mark with similar acoustic effects to movie theaters.
The DOLBY PRO LOGIC mode controls the audio signals of the Front Left/Right, Center and Rear surround channels using the built-in directivity enhancer circuit to reproduce the feeling of sound motions very realistically.
The DOLBY 3 STEREO mode can reproduce the motions of sound even when only the front and center speakers are used, by providing proper acoustic position using the directivity enhancer circuit.

DSP LOGIC

This mode adds presence sound components obtained from the DSP (Digital Signal Processor) to the signals output from the DOLBY PRO LOGIC (Left, Center, Right and Surround channels), allowing movie software programs to be played with a similar feeling of presence to movie theaters in a listening room in home.

DSP presence

This mode adds presence sound components obtained from the DSP (Digital Signal Processor) to the original source signals, allowing music source entertainment with the feeling of presence in an arena, stadium or jazz club in a listening room at home.

PRESET REMOTE CONTROL

The preset remote control contains preset memory of the remote control codes of video components from many manufacturers. By simply entering the manufacturer codes, a single unit can operate video components owned by individual users.

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Caution : Read the pages marked ⚠ carefully to ensure safe operation.

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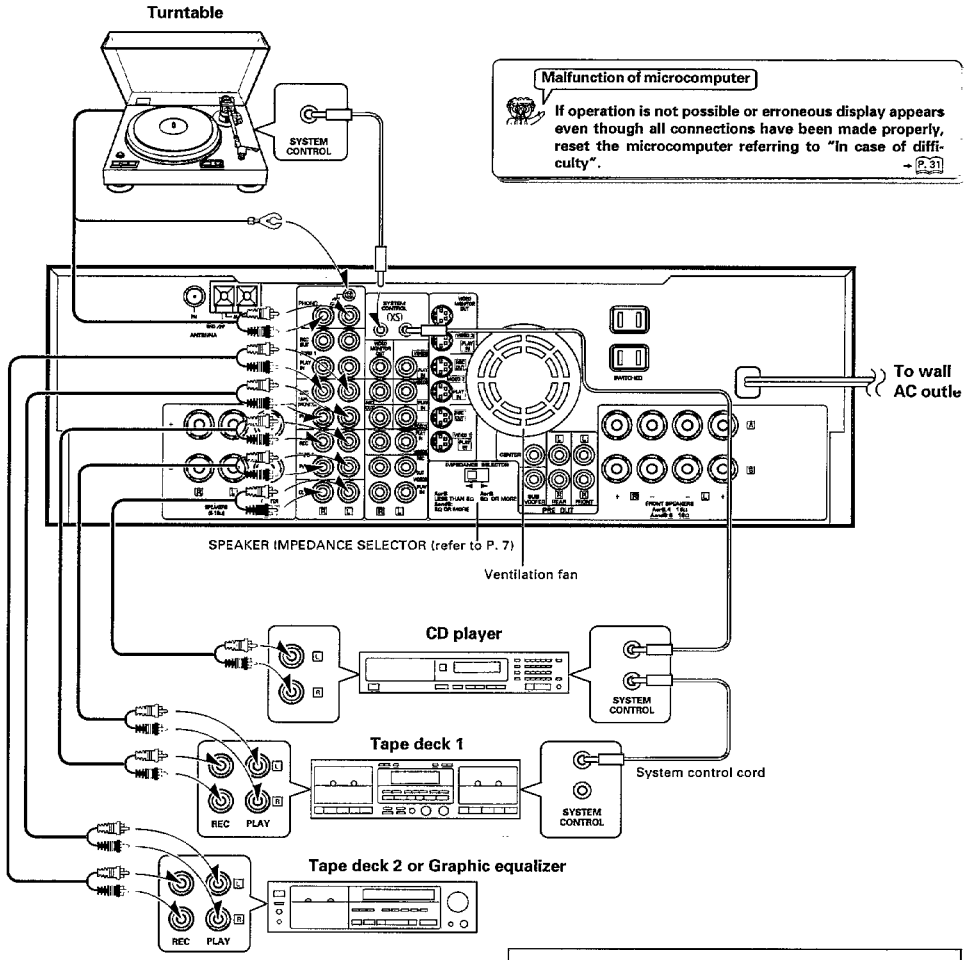
System connection

Connection of Audio components

Make connection as shown below.
When connecting the related system components, refer also to the instruction manuals of the related components.
Do not plug in the power lead until all connections are completed.


Turntable
SYSTEM CONTROL
Malfunction of microcomputer
If operation is not possible or erroneous display appears even though all connections have been made properly, reset the microcomputer referring to "In case of difficulty". → P. 31
To wall AC outlet
SPEAKER IMPEDANCE SELECTOR (refer to P. 7)
Ventilation fan
CD player
SYSTEM CONTROL
Tape deck 1
REC
PLAY
SYSTEM CONTROL
System control cord
Tape deck 2 or Graphic equalizer
REC
PLAY

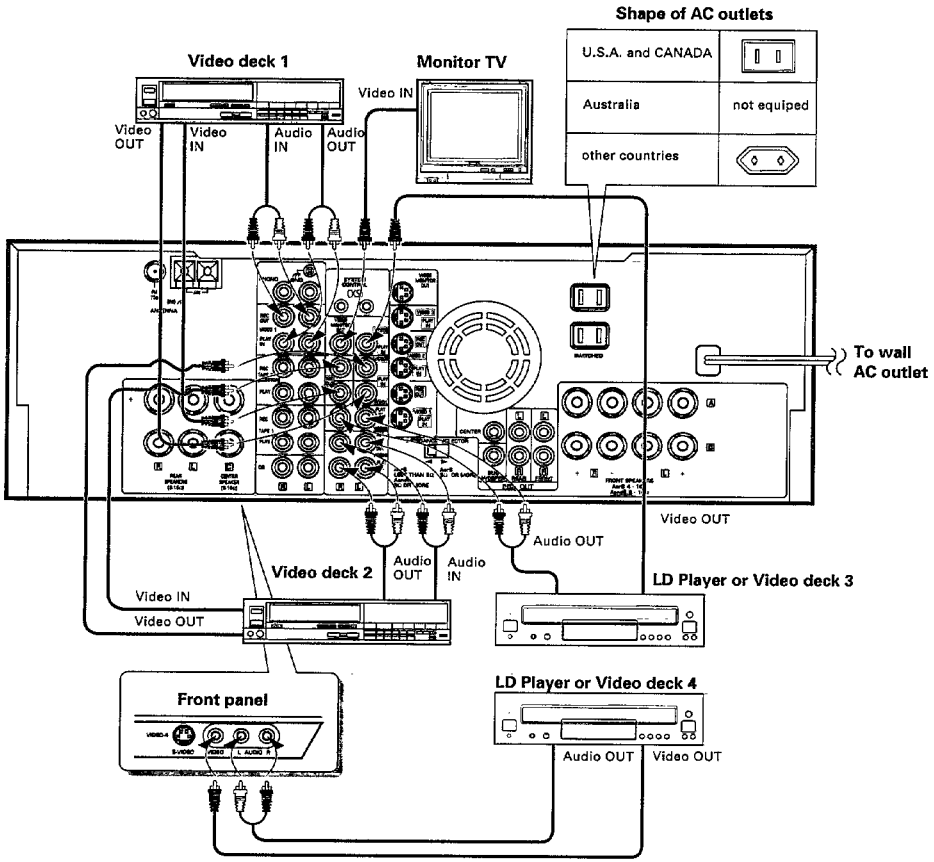
Ventilation fan
The fan rotates during high-power reproduction. To allow the ventilation, install the component by reserving a certain distance between its rear and the wall.

Automatic operation

If you connect other KENWOOD components (i.e. a cassette deck or CD player) to this unit's SYSTEM CONTROL, this unit's input selector will automatically switch to that component when you start playback from it. This also works when you use the remote control.
(Automatic operation is not possible with TAPE DECK 2 or VIDEO machines.)

Connection of Video components

Make connection as shown below.
When connecting the related system components, refer also to the instruction manuals of the related components.
Do not plug in the power lead until all connections are completed.



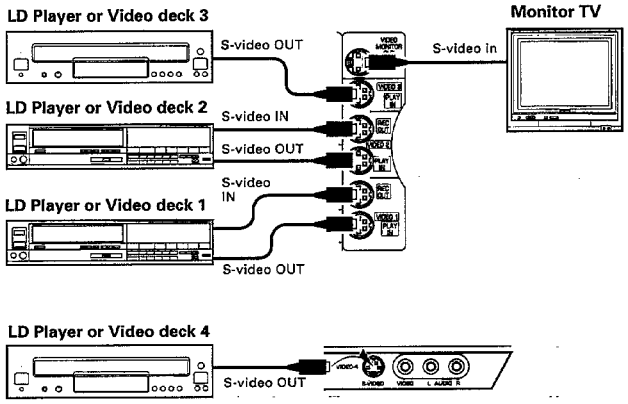
- This unit has a cooling fan on the rear panel. Do not place anything near the cooling fan.

Notes

1. Connect all cords firmly. If connections are loose, there could be loss of sound or noise produced.
2. When plugging and unplugging connection cords, be sure to first remove the power cord from the AC outlet. Plugging / unplugging connection cords without removal of the power cord can cause malfunctions or damage to the unit.
3. Do not connect up a power source which is larger than that indicated on the socket at the rear of the unit.
4. Insert the system control plugs completely into the jacks.
5. If the system control cords or audio cords are not connected properly, the remote control or automatic operation between system components will not work properly.

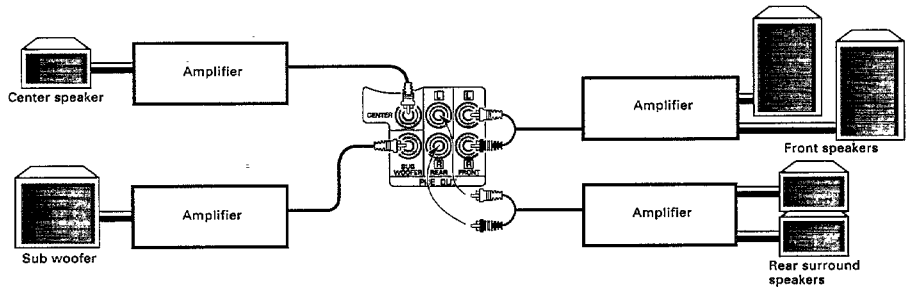
Connection of S-VIDEO terminal

Make connection as shown below.
When connecting the related system components, refer also to the instruction manuals of the related components.
Do not plug in the power lead until all connections are completed.



PRE OUT jacks

Use these jacks when you want to play music with larger volume level than the level obtained with normal connection, or when you want to enjoy music with different tones.
Speakers cannot output sufficient sound level even when they are connected directly to the PRE OUT jacks. These jacks should be connected to speakers containing an amplifier or to amplifiers to which speakers are connected.
Be sure to press the SPEAKERS switch (A and/or B) to ON.

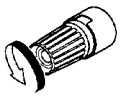


- Connect a sub woofer if you want to enhance the bass sound.
- This unit has a cooling fan on the rear panel. Do not place anything near the cooling fan.

Connection of speakers

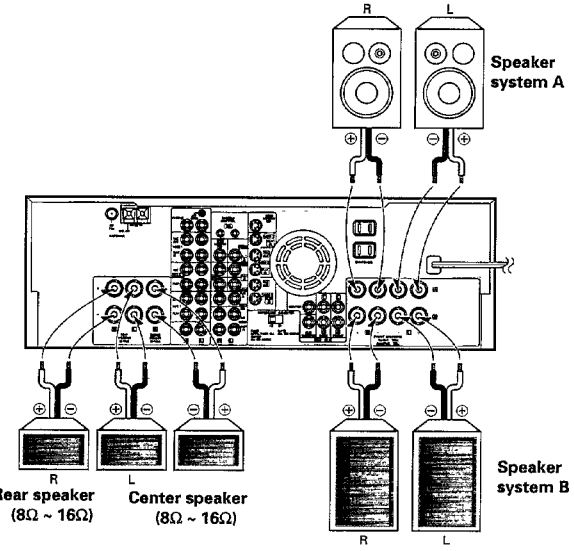
① Strip coating.

② Loosen.



③ Insert.

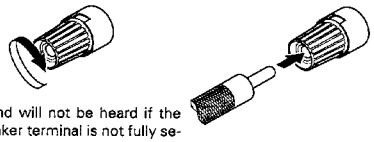
④ Secure.



Connection of banana plugs

(Except for some countries, like Singapore, etc.)

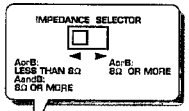
① Secure. ② Insert.



- Sound will not be heard if the speaker terminal is not fully secured

- Never short-circuit the + and - speaker cords.
- If the left and right speakers are connected inversely or if the speaker cords are connected with reversed polarity, the sound becomes unnatural with ambigous acoustic image positioning. Be sure to connect the speakers and speaker cords correctly.

Setting the speaker IMPEDANCE SELECTOR



When using the speaker A or speaker B separately

Speaker impedance	Selector position
4 Ω, 6 Ω	
8 Ω, 16 Ω	

When using the speaker A and B simultaneously

Speaker impedance	Selector position
8 Ω, 16 Ω	

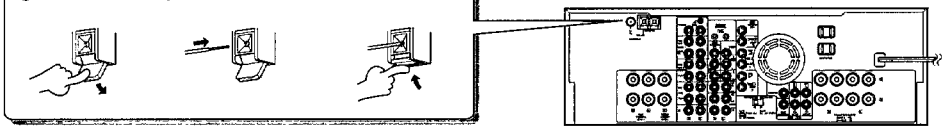
CAUTION: **TO PREVENT FIRE OR DAMAGE REQUIRING SERVICE, SET THE IMPEDANCE SELECTOR SWITCH AS DESCRIBED BELOW.**

According to the impedance of the speakers used, set the speaker **IMPEDANCE SELECTOR** on the rear panel as shown in the table.

- When the **IMPEDANCE SELECTOR** switch is set to "**AorB: LESS THAN 8Ω, AandB: 8Ω OR MORE**", it is possible to use the A and B speakers at the same time.
  Therefore, when using the speakers A and B and simultaneously, be sure to set the **IMPEDANCE SELECTOR** switch to the "**AorB: LESS THAN 8Ω, AandB: 8Ω OR MORE**" position.
- During speaker system connection and operation of the speaker **IMPEDANCE SELECTOR**, set the power key to OFF.

Connection method to each antenna terminal

① Push lever. ② Insert cord. ③ Return lever.



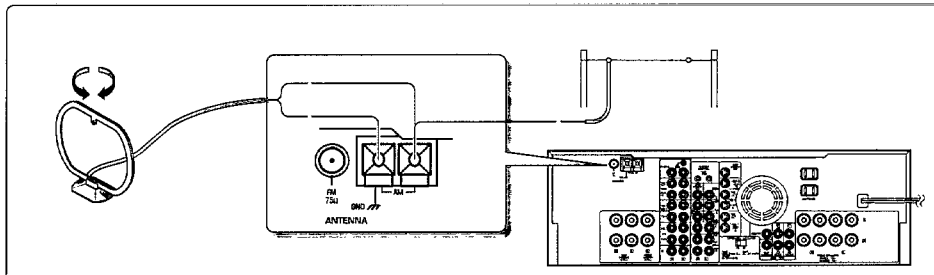
Connection of AM antenna

AM loop antenna connection

The supplied antenna is for indoor use. Place it as far as possible from the main system, TV set, speaker cords and power cord, and set it to a direction which provides the best reception.

AM outdoor antenna connection

If the reception is poor when the AM loop antenna is used, distribute a vinyl-coated wire of more than 6 meters outdoors, without disconnecting the loop antenna.



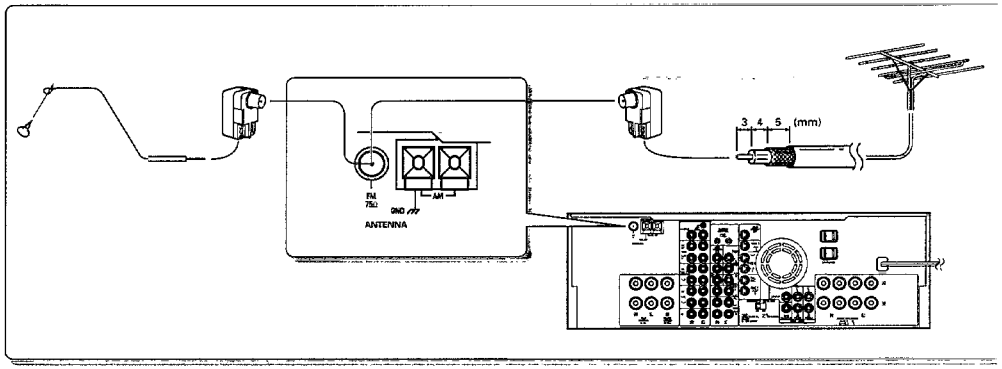
Connection of FM antenna

FM indoor antenna connection

The accessory antenna is for temporary indoor use only. For stable signal reception we recommend using an outdoor antenna. Remove the indoor antenna if you connect one outdoors.

FM outdoor antenna connection

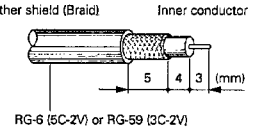
Lead the 75 Ω coaxial cable connected to the FM outdoor antenna into the room and connect it to the FM 75 Ω terminal.



Connection of antenna adaptor

① Prepare the cable.

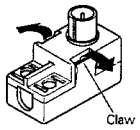
When coaxial cable is used



When the provided simplified antenna is used

Remove the vinly coating and twist conductors.

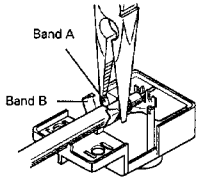
② Open the antenna adaptor.



Open the claws with the fingers to release the lock and pull out the cover.

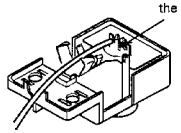
③ Attach the cable and close the cover.

When coaxiall cable is used



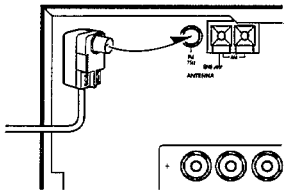
Insert the cable into the slit on the clip. Fasten bands A and B using a pair of pliers.

When the provided simplified antenna is used



Insert the antenna cord tip into the slit on the hardware and wrap the cord around it.

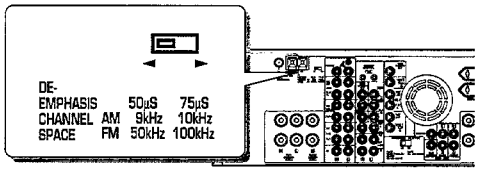
④ Connect the adaptor to the antenna terminal.



FM DE-EMPHASIS / CHANNEL SPACE switch (Except for U.S.A., Canada and Australia)

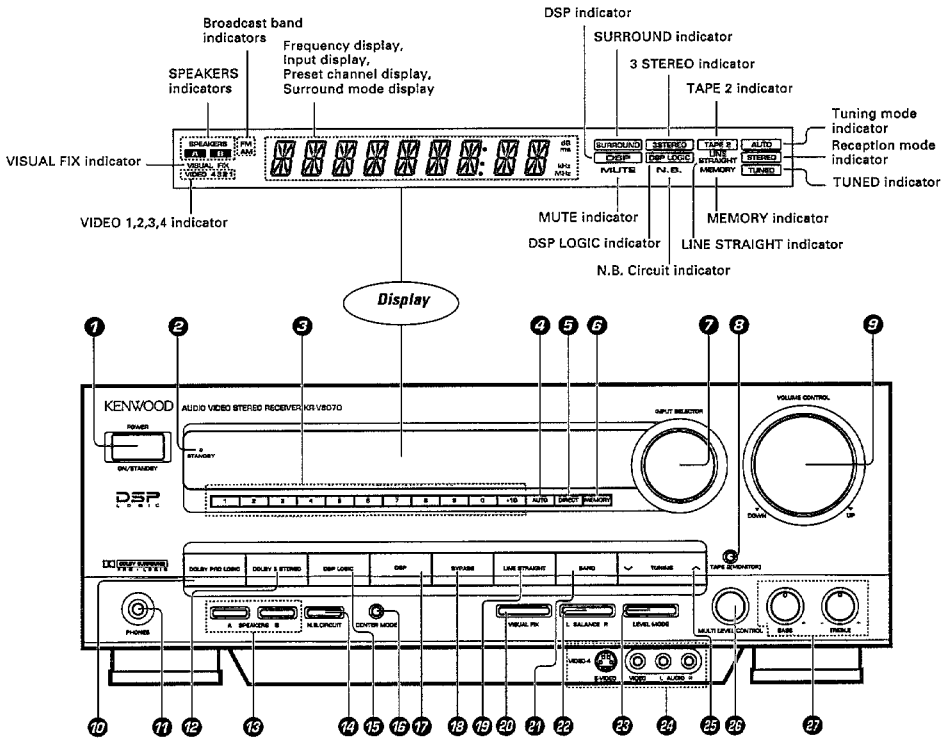
The FM DE-EMPHASIS / CHANNEL SPACE switch on the rear panel is set to the correct setting that prevails in the area to which the unit is shipped. However, if the FM DE-EMPHASIS / CHANNEL SPACE setting is not matched to the area where the unit is to be used; for instance, when you moved from area 1 to area 2 or vice versa, desired reception of AM / FM broadcasts is not expected. In this case, change the FM DE-EMPHASIS / CHANNEL SPACE setting in accordance with the area corresponding to the table. The FM DE-EMPHASIS is switched over at the same time.

- When changing the setting of the FM DE-EMPHASIS / CHANNEL SPACE switch, first disconnect the power cord of the amplifier, then reset the channel space switch, connect the power cord again, and turn the power on.



	Area	CHANNEL SPACE freq.	FM DE-EMPHASIS
1	U.S.A., Canada, Hawaii, South American countries	FM: 100kHz AM: 10kHz	75 μs
2	Other countries	FM: 50kHz AM: 9kHz	50 μs

Controls and indicators



❶ POWER key
❷ STANDBY indicator
❸ Numeric keys
❹ AUTO key
Press to select the auto tuning mode.
❺ DIRECT key
Press for direct station tuning based on numerical input.
❻ MEMORY key
Press to preset a station in the memory.
❼ INPUT SELECTOR knob
Turn to select the input sources.
❽ TAPE 2(MONITOR) key
Press to monitor the sound being recorded.
❾ VOLUME CONTROL knob
❿ DOLBY PRO LOGIC key
⓫ PHONES jack
Used for headphone listening.
⓬ DOLBY 3 STEREO key
⓭ SPEAKERS A/B keys
Press to select the A and/or B speaker systems.
⓮ N.B. CIRCUIT key
Press to enhance low frequencies.
⓯ DSP LOGIC key
⓰ CENTER MODE key
Chooses center mode in DOLBY PRO LOGIC surround and DOLBY 3 STEREO.
⓱ DSP key
⓲ BYPASS key
Press to cancel the surround modes.
⓳ LINE STRAIGHT key
To listen to a source with high quality sound.
⓴ VISUAL FIX key
㉑ BAND key
Press to switch the broadcast band.
㉒ BALANCE key
Press to adjust the volume balance between left and right.
㉓ LEVEL MODE key
㉔ VIDEO 4 terminals
㉕ TUNING keys
Press to tune broadcast stations.
㉖ MULTI LEVEL CONTROL knob
㉗ TONE CONTROL knobs

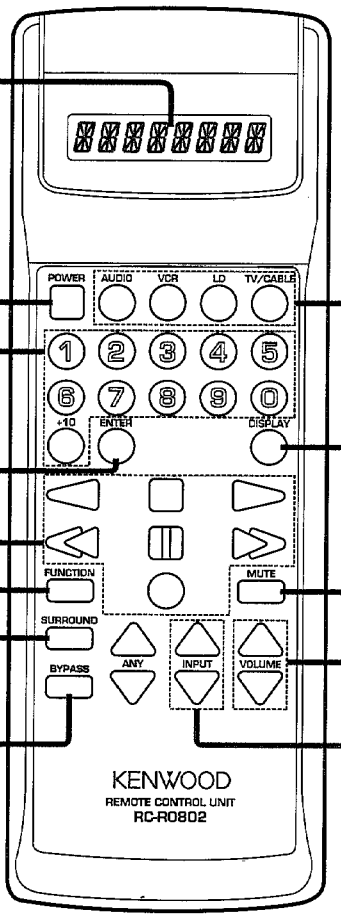
STANDBY mode of POWER switch

When the power cord of this system is plugged into an AC outlet, the **STANDBY** indicator lights up regardless of the ON/OFF setting of the POWER switch. This indicates that a small amount of current is being supplied to the unit to back up the memory contents. This mode is referred to as the Standby mode. While the **STANDBY** indicator is lit, the power of the system can be switched ON/OFF from the remote control unit.

Remote control unit

The RC-R0802 remote control unit provided with this unit can control KENWOOD cassette decks and CD player as well as the receiver unit. In addition, it can also control video components from other manufacturers than KENWOOD by recalling the manufacturer codes preset with it. For the methods of recalling manufacturer codes and other operations, please read the set-up code list on this manual.

→ P.34



Display
Displays the component being controlled.

POWER key
Press to turn the power of the controlled component ON and OFF.

Numeric keys
Use as the numeric keys of the controlled component.

ENTER key
Press when entering manufacturer codes.

Operation keys
The contents of operations vary depending on the controlled components.

SURROUND key
Press to select the surround mode of the receiver unit.

BYPASS key
Press to cancel the surround modes.

Controlled component select keys
Press to select the component controlled by the remote control unit.

AUDIO key
Press when remote controlling audio components from KENWOOD.

RECEIVER → CD → TAPE 1 → TAPE 2 →

VCR key
Press when remote controlling video decks.

VCR 1 ⟷ VCR 2

LD key
Press when remote controlling an LD player.

TV/CABLE key
Press when remote controlling a TV or cable TV.

TV ⟷ CABLE

DISPLAY key
Press to display the components which can be remote controlled currently for 5 seconds.

MUTE key
Press to mute sound temporarily.

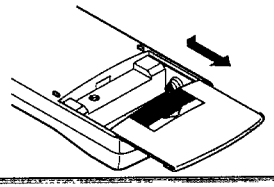
VOLUME keys
Press to adjust the volume.

INPUT keys
Press to select the inputs.

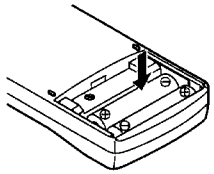
Model: RC-R0802
Infrared ray system

Loading batteries

1 ***Remove the cover.***

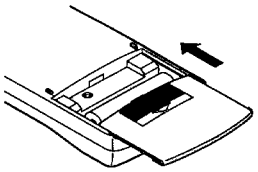


2 ***Insert batteries.***



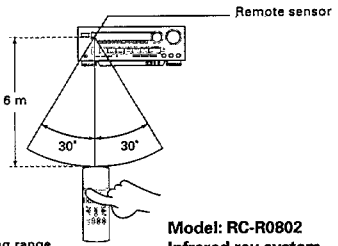
- Insert two AA-size (R6 / SUM-3) batteries as indicated by the polarity marking.

3 ***Close the cover.***



Operation procedure

Plug the power cord of the system into an AC wall outlet, and press the POWER key on the remote control unit to turn the power on. When the power is turned on, press the key of the source component to be operated.



Operating range (approx.)

Model: RC-R0802
Infrared ray system

- When two operation keys on the remote control unit are pressed successively, press each key securely reserving an interval of more than 1 second for each press.
- Components connected via the system control cords, such as the CD player, can also be remote-controlled. In this case, please read the instruction manual supplied with your CD player.
- When the batteries are exhausted and replacement becomes necessary, replace them with alkaline batteries (LR6).

Notes

1. The supplied batteries are intended for use in operation checks. Therefore, their lives may be shorter than ordinary batteries.
2. When the remote-controllable distance gets shorter than before, replace both batteries with new ones.
3. Malfunction may occur if direct sunlight or the ligh of a high-frequency lighting fluorescent lamp enters the remote control light sensor. In such a case, change the system installation position to prevent the malfunction.

Remote control of the receiver unit

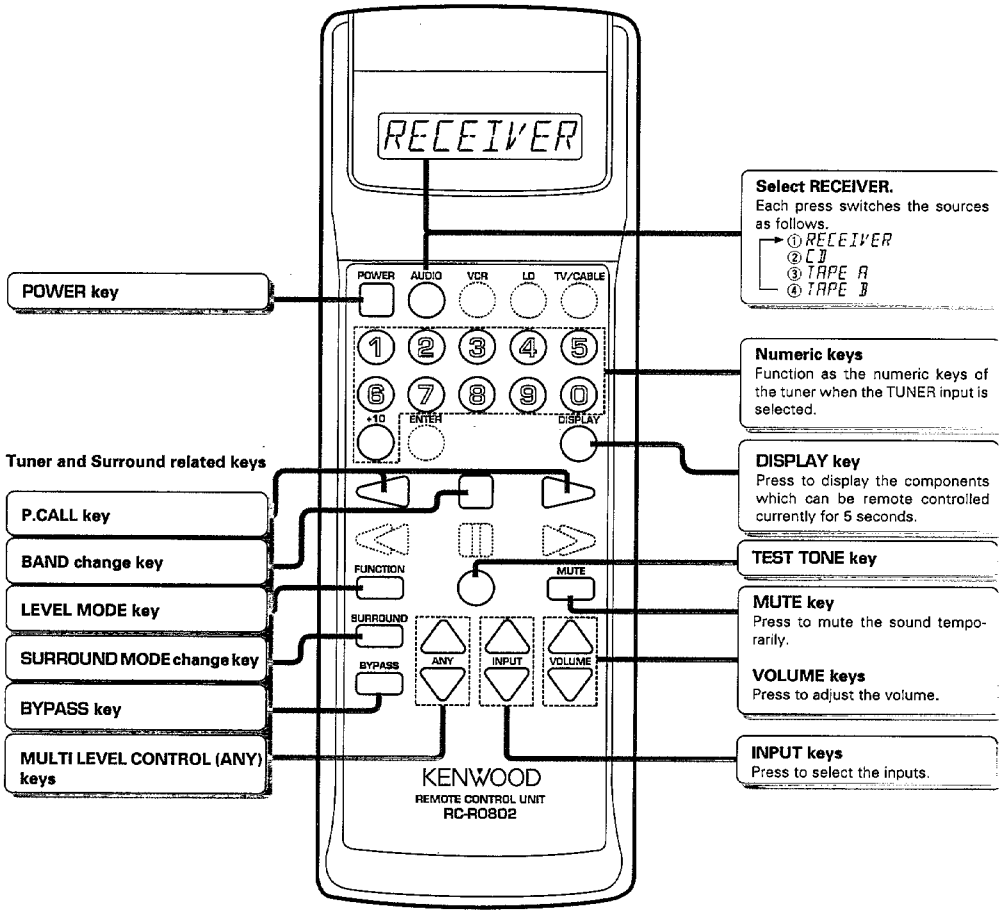
The remote control unit provided with this unit can control KENWOOD cassette decks and CD player connected to the receiver uni through system control cords.

→ P.4

To remote control the receiver unit:

① Press the **AUDIO** key to display "RECEIVER".
② Press the **POWER** key to turn the receiver unit ON.
③ Press operation keys.

*** Keys drawn with dotted lines cannot be used to control the receiver.**



POWER key

Tuner and Surround related keys

P.CALL key

BAND change key

LEVEL MODE key

SURROUND MODE change key

BYPASS key

MULTI LEVEL CONTROL (ANY) keys

Select RECEIVER.
Each press switches the sources as follows.
→ ① RECEIVER
② CD
③ TAPE A
④ TAPE B

Numeric keys
Function as the numeric keys of the tuner when the TUNER input is selected.

DISPLAY key
Press to display the components which can be remote controlled currently for 5 seconds.

TEST TONE key

MUTE key
Press to mute the sound temporarily.

VOLUME keys
Press to adjust the volume.

INPUT keys
Press to select the inputs.

Model: RC-R0802
Infrared ray system

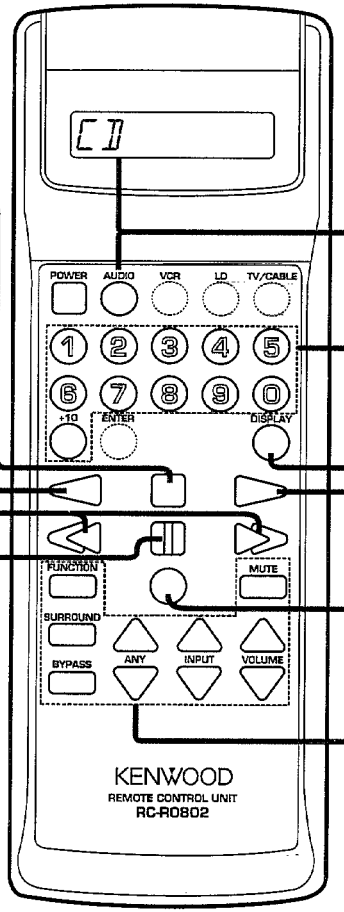
Operating the CD player or cassette deck

The remote control unit provided with this unit can control KENWOOD cassette decks and CD player connected to the receiver unit through system control cords.
→P.4

To control KENWOOD CD player or cassette deck:

① Press the **AUDIO** key to select "CD" "TAPE A" or "TAPE B".
② Press the operation keys.

*** Keys drawn with dotted lines cannot be used to control the CD player or cassette deck.**



Use as the STOP key.

Use as the PLAY (Reverse) key of the cassette deck.

With CD player:
Use as the skip keys.
With cassette deck:
Use as the Fast Forward (Rewind) keys.

With CD player:
Use as the PAUSE key of the cassette deck.
With cassette deck:
Use as the disc selector of the multi-disc CD player.

Choose a function other than RECEIVER.
Each press switches the source as follows:
→ ① RECEIVER
② CD
③ TAPE A
④ TAPE B
(Select "TAPE B" when your cassette deck is a single-deck unit.)

Numeric keys
When the CD input is selected, use as the numeric keys of the CD player.

DISPLAY key
Press to display the components which can be remote controlled currently for 5 seconds.

With CD player:
Use as the PLAY/PAUSE key.
With cassette deck:
Use as the PLAY (Forward) key.

Use as the REC key or ARM (Auto Rec Mute) key of the cassette deck.

Works the same as when operating the receiver.
→P.13

Model: RC-R0802
Infrared ray system

How to preset the set-up codes

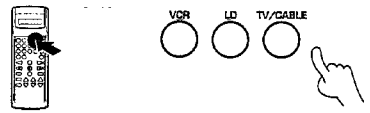
Presetting the set-up codes in order to control components by other companies with this remote control.

1 Find the set-up code of the component to be registered.

Refer to the set-up code list on pages 34 and after to find the set-up code of the component to be registered.

Example: To register a VCR from KENWOOD, 056, 061 or 082

2 Set the display for the component to be registered.



Each press of each key switches the display as follows:

	Displayed characters
VCR	VCR 1 ↔ VCR 2
LD	LD
TV/CABLE	TV ↔ CABLE

Example: Press the VCR key to select "VCR1" or "VCR2".

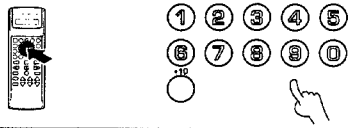
Go to step 3 within 5 sec.

3 Press the ENTER key.

The display shows "SET".

Go to step 4 within 5 sec.

4 Enter the set-up code.



Enter with numeric keys.

Example: [0], [5], [6]

- If you commit a mistake, wait until the displayed number disappears and restart from step 2.

Go to step 5 within 5 sec.

5 Press the ENTER key.

When presetting is OK

When presetting is NG

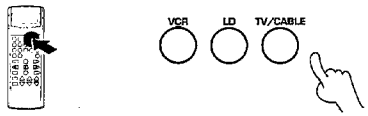
- If you made a mistake entering the set-up code, start over from step 4 within 5 seconds of the "NG" indication.

Note

The set-up codes are designed to be compatible with several models, but there may be some incompatible models. (With some models, only some of the functions can be operated.)

Operating components preset with remote codes

1 ***Set the display for the component to be registered.***



Each press of each key switches the display as follows:

	Displayed characters
VCR	VCR 1 ↔ VCR 2
LD	LD
TV/CABLE	TV ↔ CABLE

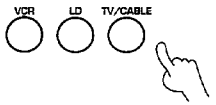
2 ***Point to the preset component and press the POWER key.***

3 ***Operate the keys.***

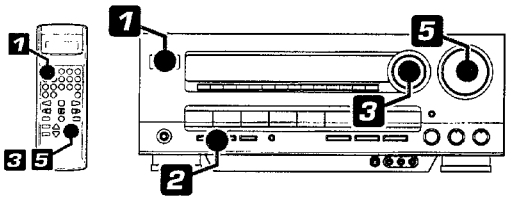
Operate referring to the remote control key correspondence table on page 33.

To turn the power OFF

① Set the display for the component to be turned OFF.



② Press the POWER key.



1 Turn the power ON.

2 Select the SPEAKERS switch setting.

The indicators of the speaker systems to be used should light up.

A, B OFF
Sound is not output from the speakers. Use this setting for listening through headphones, etc.

A ON
Sound is output from the speakers connected to the SPEAKERS A terminals on the rear panel.

B ON
Sound is output from the speakers connected to the SPEAKERS B terminals on the rear panel.

A, B ON
Sound is output from the speakers connected to the SPEAKERS A and B terminals on the rear panel.

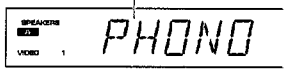
- When a surround mode is activated while both SPEAKERS A and B are ON, the SPEAKERS B system is automatically switched off. If the SPEAKERS B key is pressed at this time, the SPEAKERS B system is switched ON and the SPEAKERS A system is switched OFF automatically.
- Output to the sub woofer is not turned off even if you turn off both SPEAKER A and B.

3 Select the input source.

The input sources are switched in the following order:

→ ① **TUNER** (frequency display)
② TAPE 1
③ VIDEO 1
④ VIDEO2
⑤ VIDEO3
⑥ VIDEO4
⑦ CD
⑧ PHONO →

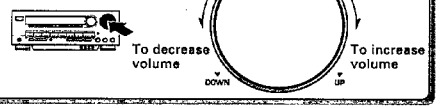
The selected source is displayed.



- The selected input source is held in memory for about 3 days even after the power cord is unplugged from the mains outlet.

4 Play the selected source.

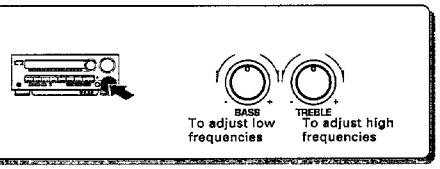
5 Adjust the volume.



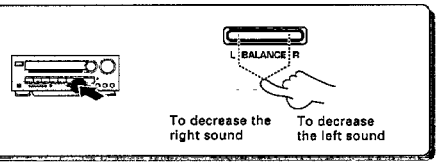
Volume level is displayed.

- The sound of input source cannot be listened to while TAPE 2(MONITOR) is ON.

Adjusting the tone

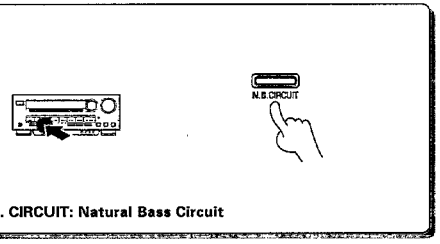


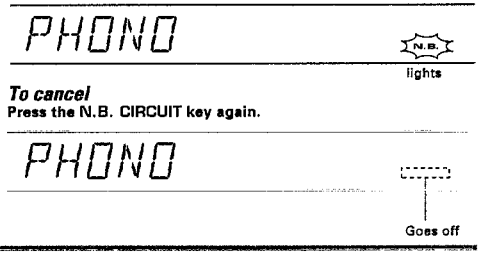
Adjusting the left/right sound balance



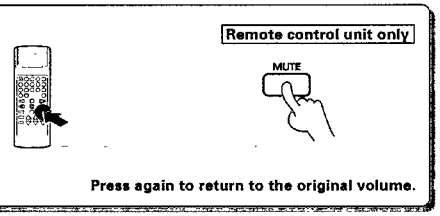
How to use the N.B. CIRCUIT key

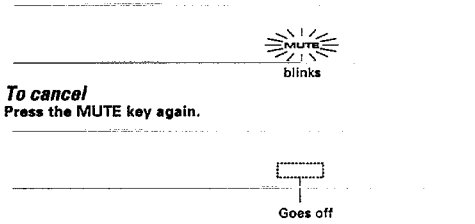
The natural bass circuit corrects for more natural bass sound.



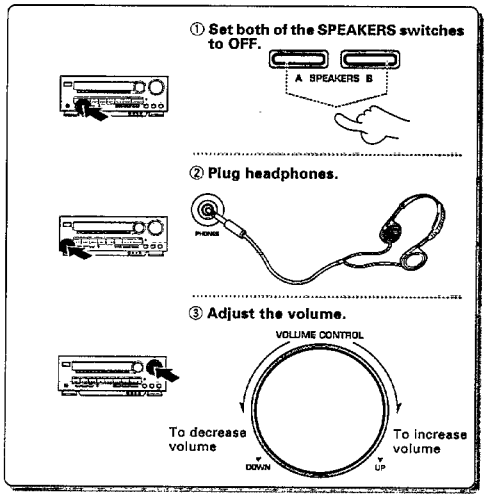


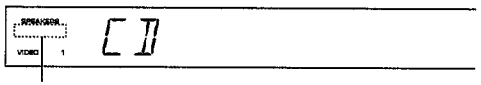
To mute sound temporarily





To listen through headphones



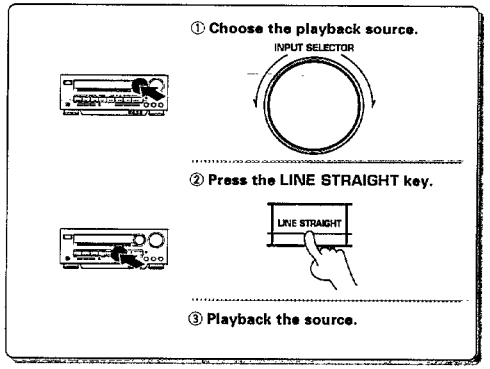


Make sure the light is out.

- Output to the sub woofer is not turned off even if you turn off both SPEAKER A and B.

Playback with Line Straight

This feature allows you to enjoy music sources such as CD with an even higher sound quality.



lights

- Tone controls cannot be moved during playback with line straight.
- Pressing keys related to surround sound will cancel line straight playback.

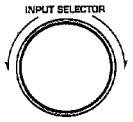
To cancel

Press the LINE STRAIGHT key again.

Goes off

To record a music source

① Select the source to be recorded.



Select an input source other than TAPE 1.

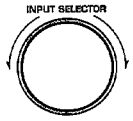
② Put the cassette deck in record-pause mode.

③ Play the source and start recording.

Copying tape (Tape dubbing TAPE 2 → TAPE 1)

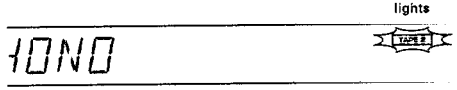
① Press the TAPE 2(MONITOR) key.

② Select a source other than TAPE 1.



③ Play cassette deck 2 and start recording on cassette deck 1.

lights



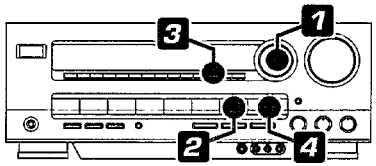
- For copying a tape using a double cassette deck, read the instruction manual of the double cassette deck.

Copying tape (Tape dubbing TAPE 1 → TAPE 2)

Play the cassette deck connected to the TAPE 1 jacks and start recording of the cassette deck connected to the TAPE 2 jacks.

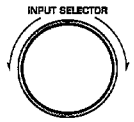
Regarding TAPE 2 (MONITOR)

A cassette deck or graphic equalizer can be connected to this unit's TAPE 2 (MONITOR) terminals. If you connect a graphic equalizer, turn the TAPE 2 (MONITOR) key ON. If you connect a 3-head cassette deck, you can monitor the source sound, or the sound being recorded, while recording Pressing the TAPE 2 (MONITOR) key lets you compare the recorded sound and the source sound. Refer to the operating manual for the componen you connected for further details.



Receiving broadcast station

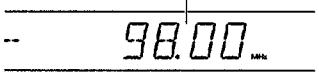
1 Select the TUNER input.



The input sources are switched in the following order:

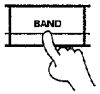
① **TUNER** (frequency display)
② TAPE 1
③ VIDEO 1
④ VIDEO2
⑤ VIDEO3
⑥ VIDEO4
⑦ CD
⑧ PHONO

Frequency display



- The last frequency tuned before is displayed.

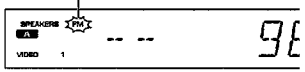
2 Select the broadcast band.



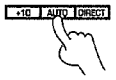
Each press switches the band as follows:

① **FM**
② **AM**

"AM" or "FM" indicator



3 Select the tuning method.



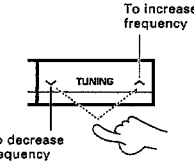
Each press switches the turning method as follows:

① **AUTO** lit (auto tuning)
② AUTO not lit (manual turning)

- Usually, set the switch to **AUTO** (auto tuning).

Select manual tuning when noise interferes due to weak radio wave. (The stereo broadcasting is received in monaural during manual tuning.)

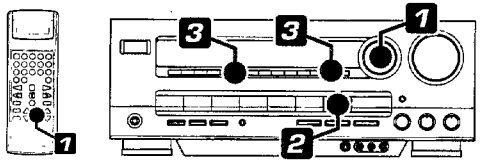
4 Select a station.



Frequency display

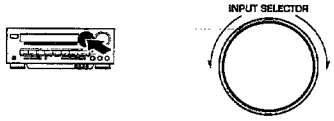
"TUNED" lights up when a station is turned.

Auto tuning: The next station found is tuned automatically.
Manual tuning: Press repeatedly or hold until a station is tuned.



Receiving radio station by specifying its frequency

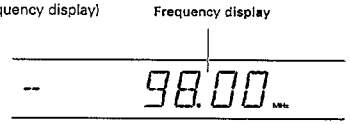
1 Select the TUNER input.



The input sources are switched in the following order:

① **TUNER** (frequency display)
② TAPE 1
③ VIDEO 1
④ VIDEO2
⑤ VIDEO3
⑥ VIDEO4
⑦ CD
⑧ PHONO

Frequency display



2 Select the broadcast band.

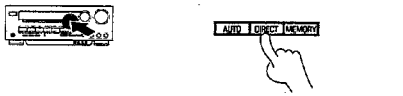
Each press switches the band as follows:

① **FM**
② **AM**

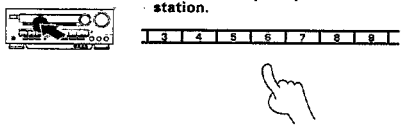
"AM" or "FM" indicator

3 Specify the frequency.

① **Press the DIRECT key.**



② **Enter the frequency of the desired station.**



Press the numeric keys according to the frequency to be tuned as shown below.

*AM10kHz/FM100kHz territories (U.S.A., Canada, etc.)

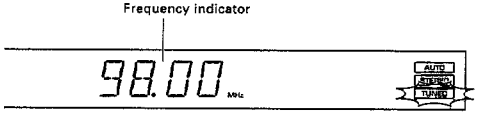
AM 810 kHz	[8], [1]	(10 kHz space)
AM 1260 kHz	[1], [2], [6]	(10 kHz space)
FM 90 MHz	[9], [0], [0]	(100 kHz space)
FM 102.5 MHz	[1], [0], [2], [5]	(100 kHz space)

*AM9kHz/FM50kHz territories (other countries)

AM 810 kHz	[8], [1], [0]	(9 kHz space)
AM 1260 kHz	[1], [2], [6], [0]	(9 kHz space)
FM 90 MHz	[9], [0], [0], [0]	(50 kHz space)
FM 102.5 MHz	[1], [0], [2], [5], [0]	(50 kHz space)

*FM DE-EMPHASIS/CHANNEL SPACE switch → P.9

Frequency indicator



"TUNED" lights up when a station is tuned.

- If you make a mistake, repeat step 3 again.

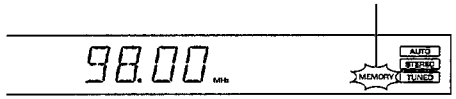
Preparation

- Tune the station to be stored in memory. → P. 21
- Press the AUDIO key on the remote control to display "RECEIVER".

Storing radio stations in memory (Station preset)

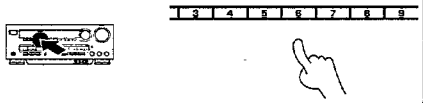
1 Press the MEMORY key during receiving a station.

Lights up (for 5 sec.)



Proceed to step 2 within 5 sec. (If more than 5 sec. have elapsed, press the MEMORY key again.)

2 Select one of the preset numbers from 1 to 40.



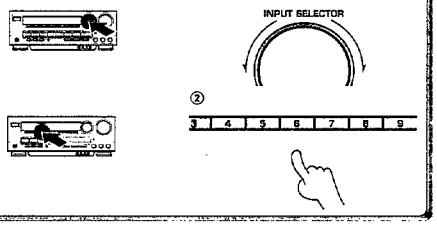
Press the numeric keys in the following order.
To store in "15" ... [+10], [5]
To store in "20" ... [+10], [+10], [0]

- Repeat steps 1 and 2 for each of the stations to be stored in memory.
- If a station is stored in a preset number which already stores a station memory under it, the previous memory is replaced by the new memory content.
- Once the memory content has been preset, it is held for about 3 days even after the power cord is unplugged from the mains outlet.

Receiving a preset station

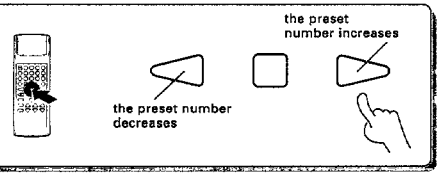
Press the preset number of the desired station.

① Select the TUNER input with the INPUT SELECTOR.



Press the numeric keys in the following order.
To recall "15" ... [+10], [5]
To recall "20" ... [+10], [+10], [0]

Receiving all preset stations in order



- Every time the key is pressed, the next station in the order of the preset number is received.

When you press ▷ key,... 1 → 2 → 3 ····· 38 → 39 → 40

When you press ◁ key,... 1 → 2 → 3 ····· 38 → 39 → 40

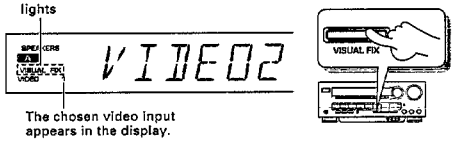
If the key is held pressed ..... Preset stations will be received successively for about half a second each.

Operation of video components

For the connections and operations, also read carefully the instruction manuals of the video components. →P.8

Regarding the VISUAL FIX key

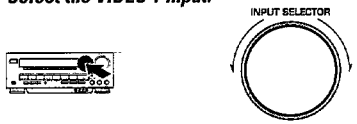
This key prevents visual input sources from switching.
For example, with VISUAL FIX on, even though you change the input source from VIDEO 1 to VIDEO 2, the VIDEO 1 images continue uninterrupted and only the audio portion changes to the VIDEO 2 source.



Playback of videotape

1 ***Turn the power of the monitor TV ON.***

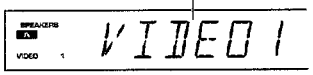
2 ***Select the VIDEO 1 input.***



The input sources are switched in the following order:

→ ① **TUNER** (frequency display)
② TAPE 1
③ VIDEO 1
④ VIDEO2
⑤ VIDEO3
⑥ VIDEO4
⑦ CD
⑧ PHONO →

"VIDEO 1" should be displayed.



- Select the input to which a video deck is connected.

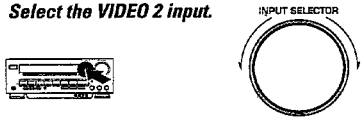
3 ***Play the video deck.***

Recording of video source

1 ***Connect the video source component to be played.***

- Connect the component to be played to the VIDEO 2 jacks.
- The connectable components include a video deck (playback only), video camera (playback only), LD player or DBS tuner.

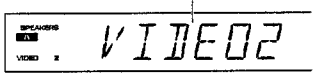
2 ***Select the VIDEO 2 input.***



The input sources are switched in the following order:

→ ① **TUNER** (frequency display)
② TAPE 1
③ VIDEO 1
④ VIDEO2
⑤ VIDEO3
⑥ VIDEO4
⑦ CD
⑧ PHONO →

"VIDEO2" should be displayed.



3 ***Play the source component.***

4 ***Start recording on the recording video deck.***

- Start recording with the video deck which is connected to the VIDEO 1 jacks.

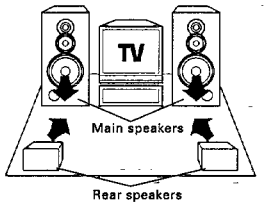
Presence play

The surround modes allow to enjoy the feeling of presence in music. Select the mode according to the source or components played. For the connections of the rear and/or center speakers, refer to "Connection of speakers". → P. 7

DSP presence mode

This mode provides a live atmosphere to music sources. By adding the reverberation component of one of the three sound fields of this mode, it allows to enjoy three kinds of sound fields with full of feeling of presence. The sound field can be selected according your liking.
To use this mode, connect the rear speakers. → P. 28

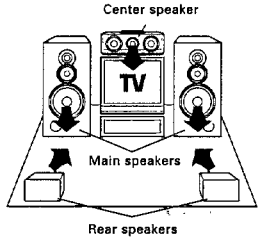
- ① ARENA
- ② JAZZ CLUB
- ③ STADIUM



DSP LOGIC

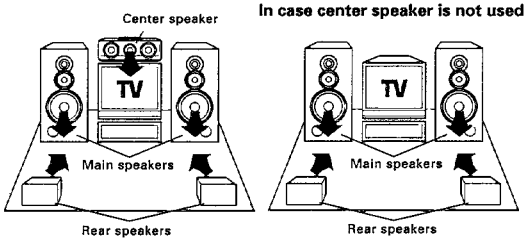
DSP LOGIC lets you enjoy the atmosphere of a movie theater in your listening room. By adding the reverberation aspects of a movie theater to the sound from the original music source, you can enjoy the soundscape of either a large or small movie theater. Be sure to connect rear and center speakers when using this mode. → P. 28

- ① LARGE
- ② SMALL



DOLBY PRO LOGIC surround mode

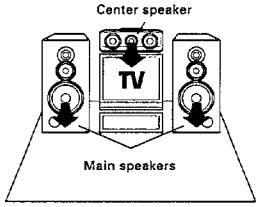
Video and LD software programs carrying the [DOLBY SURROUND] mark contain recording of the same Dolby Surround data as those used in movie theaters.
The DOLBY PRO LOGIC surround mode uses the Dolby Surround data and brings into home a similar sound field with full of presence to movie theatres.
To use this mode, connect the rear (and center) speakers. → P. 28



In case center speaker is not used

DOLBY 3 STEREO mode

If the left and right speakers are installed apart from each other, the center acoustic image (words, etc.) may vary depending on the listener's position. The DOLBY 3 STEREO mode provides an improved positioning of the center acoustic image regardless of the listening position.
To use this mode, connect the center speaker. → P. 30



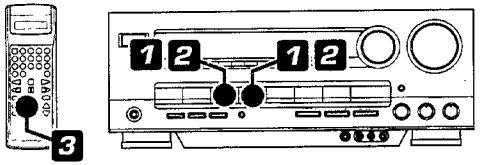
What is DSP?

The DSP stands for Digital Signal Processor. In the DSP presence and DSP LOGIC modes, the reverberation components (elements of sound echoed in various spaces) which determine the feeling of presence are created by digital processing by the DSP without spoiling the sound quality of the original music source.

With DSP, you can enjoy a variety of soundscapes. By adjusting the settings, you can even create your own soundscape. To obtain optimum results, always adjust the settings from you listening position.

Preparation

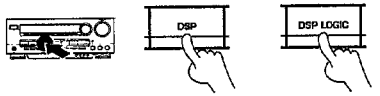
- Start the playback source.
- Press the AUDIO key on the remote control to display "RECEIVER".



Enjoying music with a feeling of presence

1 Choose the presence mode.

DSP mode DSP LOGIC mode



2 Choose a sound field.

For DSP mode

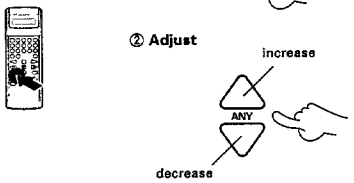
For DSP LOGIC mode

Although both 1 and 2 provide fully effective sound field, proceed to steps 3, 4, and 5 if you'd like.

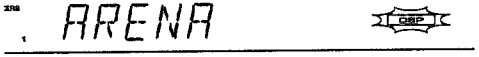
3 Adjusting the delay time

① Choose "DELAY"

② Adjust



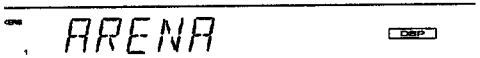
When you've chosen the DSP mode.



- Choose the mode based on your speaker arrangement and playback source.

For DSP mode

① ARENA **(ARENA)**
Reproduces the feeling of sitting in the front row of an arena concert.
② JAZZ CLUB **(JAZZ CLUB)**
Reproduces crisp cymbal crashes like at a jazz club.
③ STADIUM **(STADIUM)**
Reproduces a feeling of release associated with the near absence of reverberation reflected from the ceiling.



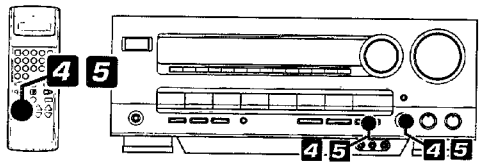
For DSP LOGIC mode

① LARGE **(LARGE)**
Reproduces the presence of a large movie theater.
② SMALL **(SMALL)**
Reproduces the presence of a relatively small movie theater.

The following switch each time you press FUNCTION.

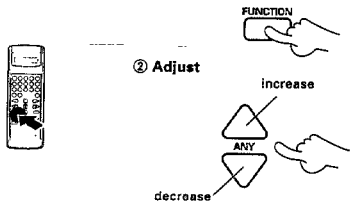
① DELAY **(DELAY TIME)**
② EFFECT **(EFFECT LEVEL)**
③ CENTER **(CENTER LEVEL: DSP LOGIC mode only)**
④ REAR **(REAR LEVEL)**

- The delay time is adjusted in 10ms steps each time you press the **MULTI LEVEL CONTROL(ANY)** keys.
- The delay time adjustment range is 10ms - 60ms.
- The values set in this step are reset to the initial values when an other sound field or one of the Dolby surround modes is selected.



4 *Adjusting the effect level*

① **Choose "EFFECT"**

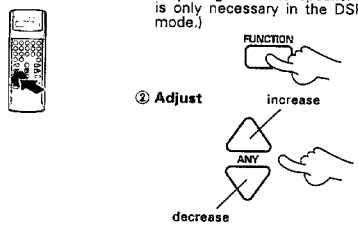


② **Adjust**

- The effect level is adjusted in 1dB steps each time you press the **MULTI LEVEL CONTROL(ANY)** keys.
- The effect level adjustment range is -10dB - +10dB.
- The values set in this step are reset to the initial values when another sound field or one of the Dolby surround modes is selected.

5 *Adjusting center and rear speaker volume*

① **Choose "CENTER" or "REAR"**
(Adjusting the center speaker's volume is only necessary in the DSP LOGIC mode.)



② **Adjust**

- The volume level is adjusted in 1dB steps each time you press the **MULTI LEVEL CONTROL(ANY)** keys.
- The volume level adjustment range is -10dB - +10dB.
- The rear level is stored in memory as the common setting with "DOLBY PRO LOGIC", and the center level is stored in memory as the common settings with "DOLBY PRO LOGIC" and "DOLBY 3 STEREO".

To cancel presence playback

- Be sure to turn off the presence mode when not using presence playback.

You can enjoy theater-like sound effects when you playback videos and laser discs with the DOLBY SURROUND mark.

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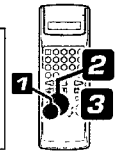
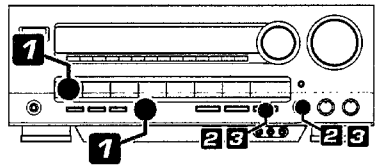
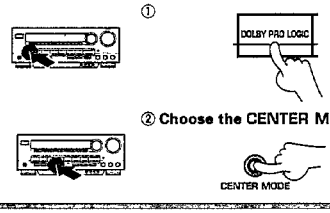




DOLBY PRO LOGIC surround adjustment

1 Set the DOLBY PRO LOGIC mode



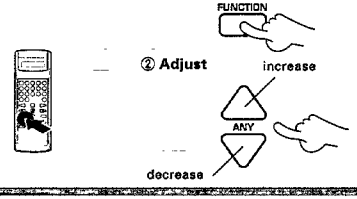
PRO LOGIC SURROUND

Each press of the **CENTER MODE** key switches the center modes a follows:

- ① NORMAL : If you have a small center speaker.
- ② WIDEBAND : If you have a medium or large center speaker.
- ③ PHANTOM : If you don't have a center speaker.

- If you can't decide whether you have a small or medium sized cer ter speaker, compare the sound in both modes and choose the on you prefer.
- The unit automatically remembers the center mode you've chose and only changes when you reset the mode.

2 Set the delay time



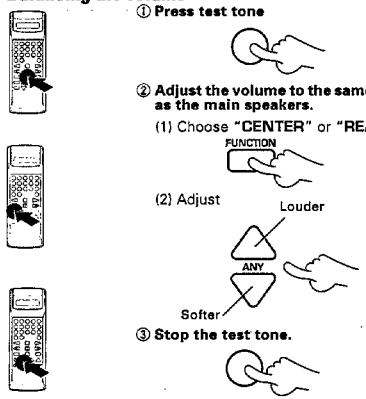
The following switch each time you press FUNCTION

- ① DELAY **(DELAY TIME)**
- ② CENTER **(CENTER LEVEL)**
- ③ REAR **(REAR LEVEL)**

- The adjustment range for the delay time is 15 - 30ms and can b adjusted in 1ms steps.
- Once you set the delay time the unit automatically remembers an only changes when you reset it.

How to decide the DELAY TIME → P.29

3 Balancing the volume



- The buzzing test tone moves once every 1.5 seconds

With NORMAL or WIDE BAND

- LEFT (L)
- CENTER (C)
- RIGHT (R)
- SURROUND (rear) (S)

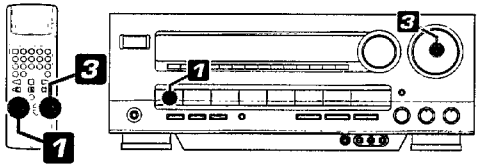
With PHANTOM

- LEFT (L)
- RIGHT (R)
- SURROUND (rear) (S

TEST L SURROUND

- Make adjustments from your listening position.
- The **MULTI LEVEL CONTROL(ANY)** key adjusts in 1dB steps.
- The volume level adjustment range is -10dB - +10dB.
- The rear level is stored in memory as the common settings wi "DSP" and "DSP LOGIC", and the center level is stores as the com mon settings with "DOLBY 3 STEREO" and "DSP LOGIC".

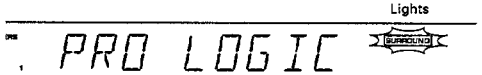
Please finish the DOLBY PRO LOGIC surround adjustments before you playback videos or laser discs with the [DOLBY SURROUND] mark.



DOLBY PRO LOGIC surround playback

1 Turn on DOLBY PRO LOGIC.

Lights

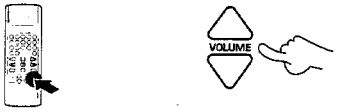


Each press of the key switches the modes as follows: (Remote control unit)

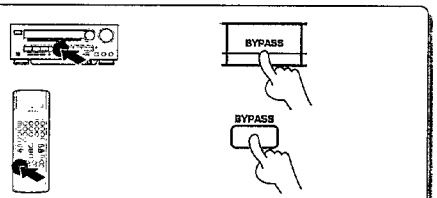
- ① PRO LOGIC
- ② 3 STEREO
- ③ DSP LOGIC (LARGE, SMALL)
- ④ DSP (ARENA, JAZZ CLUB, STADIUM)

2 Start video playback.

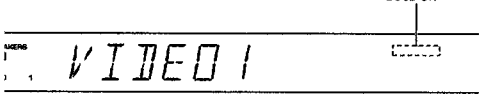
3 Adjust the volume.



To Cancel DOLBY PRO LOGIC SURROUND play

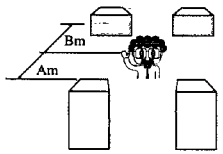


Goes off



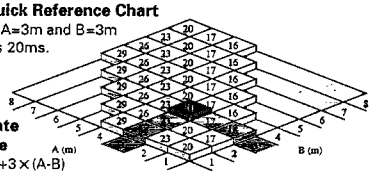
How to decide the delay time

The distance from the front speaker is A meters and the distance from the rear speaker is B meters.



① Delay Time Quick Reference Chart

Example: When A=3m and B=3m the delay time is 20ms.

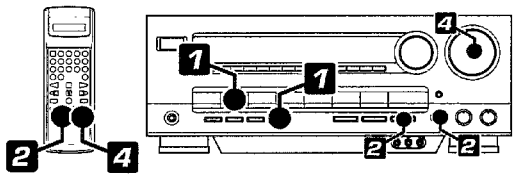


② How to Calculate the Delay Time

Delay time = 20+3×(A-B)
(unit of measurement: ms)

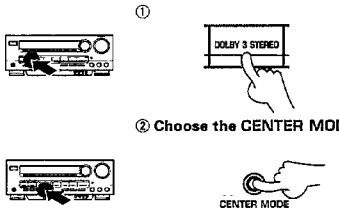
Set the delay time to the number closest to the one you found using ether method one or two.

Using a center speaker when playing back videos with 2 channel stereo, improves the dialog, and overall sound quality, by increasing the sound's directionality.



DOLBY 3 STEREO adjustment and playback

1 Set the DOLBY 3 STEREO mode.



3 STEREO

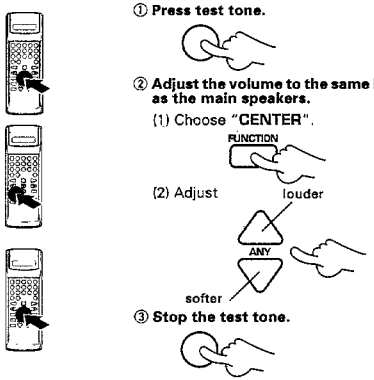
Each press of the **CENTER MODE** key switches the center modes as follows:

① *NORMAL* : If you have a small center speaker.
② *WIDEBAND* : If you have a medium or large center speaker.

NORMAL and WIDE switch when you press the center mode key.

- If you can't decide whether you have a small or medium sized center speaker, compare the sound in both modes and choose the one you prefer.
- The unit automatically remembers the center mode you've chosen and only changes when you reset the mode.

2 Balancing the volume.



- The buzzing test tone moves once every 1.5 seconds

LEFT (*L*)
CENTER (*C*)
RIGHT (*R*)

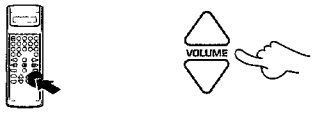
SPEAKERS
VIDEO 1
TEST L

SPEAKERS
VIDEO 1
CENTER +5 dB

- Make adjustments from your listening position.
- The **MULTI LEVEL CONTROL(ANY)** key adjusts in 1dB steps.
- The volume level adjustment range is -10dB - +10dB.
- The center level is stored in memory as the common settings with "DOLBY PRO LOGIC" and "DSP LOGIC"

3 Start video playback.

4 Adjust the volume.



To cancel DOLBY 3 STEREO play

In case of difficulty

Operation to reset

The microcomputer may fall into malfunction (impossibility to operate, erroneous display, etc.) when the power cord is unplugged while power is ON or due to an external factor. In this case, execute the following procedure to reset the microcomputer and return it to normal condition.

Unplug the power cord from the power socket and, while holding the POWER key depressed, plug the power cord into the socket again.

- Please note that resetting the microcomputer clears the contents stored in it returns it to the condition when it left the factory.

Amplifier

Symptom	Cause	Remedy
Sound is not output.	• The speaker cords are disconnected. • The VOLUME is set to the minimum position. • MUTE is ON. (The MUTE indicator is blinking) • The SPEAKERS switches are set to OFF. • The **TAPE 2(MONITOR)** key is set to ON.	• Connect them properly referring to "System connection". → P. 7 • Adjust the volume to a proper level. • Press the MUTE key to OFF. → P. 18 • Set the SPEAKERS switch(es) to ON. → P. 17 • Set the **TAPE 2(MONITOR)** key to OFF.
The STANDBY indicator blinks and sound is not output.	• Speaker cords are short-circuited.	• Turn the power off, eliminate the short-circuiting, then turn on the power again. → P. 7
Sound is not output from one of the speakers.	• The speaker cord is disconnected. • The BALANCE control is set to an extreme position.	• Connect it properly referring to "System connection". • Adjust the Left/Right balance.
Sound is not output from the Surround rear speaker and/or center speaker, or their sound is very small.	• The rear-speaker cords and/or center speaker cord are disconnected. • The Surround play mode has not been engaged. • The REAR VOL. and/or CENTER VOL. controls are set to the minimum level.	• Connect them properly referring to "System connection". • Set the presence mode. • Adjust the REAR VOL. and CENTER VOL. controls.
A hum noise is generated when the PHONO input selector key is pressed.	• The audio cord from the turntable is not inserted securely into the PHONO jacks. • The turntable is not grounded.	• Insert the audio coed plugs securely into the PHONO jacks. • Connect the grounding wire to the GND terminal on the rear panel.

Tuner

Symptom	Cause	Remedy
Radio stations cannot be received.	• No antenna is connected. • The broadcast band is not set properly. • The frequency of the desired station is not tuned.	• Connect an antenna. • Set the broadcast band properly. • Tune the frequency of the desired station. → P. 21
Interference.	• Noise due to ignition noise of an automobile. • Noise due to an influence from an electric appliance. • Noise due to a nearby TV set.	• Install the outdoor antenna away from the road. • Turn off the power to the appliance. • Install the system farther away from the TV set.
A station which was preset cannot be received by pressing the corresponding numeric key.	• The preset station belongs to a frequency that cannot be received. • The preset memory was cleared because the power cord had been unplugged for a long period of time. • The TUNER input is not selected.	• Preset a station with a receivable frequency. • Preset the station again. • Select the TUNER input.

Note

Do not use contact cleaners because it could cause a malfunticon. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

Remote control unit

Symptom	Cause	Remedy
Remote control operation is not possible.	• Batteries are exhausted. • The remote control unit is too far away from the main system, controlling angle is too large, or there is an obstacle in between. • The audio cords and system control cords are not connected properly. • The source component to be operated does not contain the tape(s) or CD. • An attempt is made to play a tape which is being recorded in the cassette deck.	• Replace with new batteries. → P.12 • Operate the remote control unit within the controllable range. • Connect properly referring to "System connection". → P.4 • Place the tape(s) or CD in the source component to be played. • Wait until the recording is completed.

Note

Do not use contact cleaners because it could cause a malfunticon. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

Remote control key correspondence table

Refer to the following table before remote controlling each function. Pressing one of the illustrated keys in the table activates the function according to the selected component.

COMPONENT	VCR (VCR)		LD (LD)	TV/CABLE (TV/CABLE)	
DISPLAY / KEY	VCR 1	VCR2	LD	TV	CABLE
POWER	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9
0	0	0	0	0	0
+10	+10	+10	+10	+10	+10
▷	PLAY	PLAY	PLAY	TV VOLUME UP	TV VOLUME UP
□	STOP	STOP	STOP	TV MUTE	TV MUTE
◁				TV VOLUME DOWN	TV VOLUME DOWN
▷▷	FAST FORWARD	FAST FORWARD	FAST FORWARD		
❚❚	PAUSE	PAUSE	PAUSE		
◁◁	FAST REWIND	FAST REWIND	FAST REWIND		
○	RECORD	RECORD			
FUNCTION	VCR1/TV INPUT SELECT	VCR2/TV INPUT SELECT	OPEN/CLOSE	TV/VCR INPUT SELECT	TV/VCR INPUT SELECT
△ (ANY)	VCR1 CHANNEL UP	VCR2 CHANNEL UP	SEARCH UP	TV CHANNEL UP	CABLE TV CHANNEL UP
▽ (ANY)	VCR1 CHANNEL DOWN	VCR2 CHANNEL DOWN	SEARCH DOWN	TV CHANNEL DOWN	CABLE TV CHANNEL DOWN

Set-up code lis

VCR set-up code

Maker	Set-up code
AIKO	293
AIWA	015
AKAI	056,064,068,076,257
ANAM	045,177
ANAM NATIONAL	045
AUDIOVOX	052
BELL & HOWELL	119
BLAUPUNKT	045
BROKSONIC	136,199,226,376
CANON	050,182
CAPEHART	035
CARVER	096
CCE	087,293
CRAIG	062,255,286
CURTIS MATHES	050
DAEWOO	035,060,061,102,293
DAYTRON	035
DYNATECH	015
EMERSON	015,017,052,076,136,199, 223,224,226,227,309,310,376
FISHER	062,069,081,119
FUNAI	015
GE	050,075,080
GENERAL	067
GO VIDEO	247,294
GOLDSTAR	033,052,053
GRADIENTE	015
HARMAN/KARDON	053,090
HITACHI	015,056,057,080,120,181
JCL	050
JENSEN	056
JVC	023,056,082
KENWOOD	053,056,061,082
LLOYD	015
LOGIK	087
LXI	052
MAGNAVOX	015,050,054,096,125,164
MARANTZ	050,053,096
MARTA	052
MEI	050

Maker	Set-up code
MEMOREX	015,050,052,054,061,062, 063,119
MGA	058,076
MGN TECHNOLOGY	255
MINOLTA	057,120
MITSUBISHI	058,076,090,188,229,257
MTC	015,255
MULTITECH	015,087
NAD	073
NATIONAL	045
NEC	053,055,056,065,082,097
NIKKO	052
NOBLEX	255
OPTIMUS	063,073
OPTONICA	063,077
PANASONIC	045,050,092,111,177,397
PENNEY	050,052,053,055,057,255
PENTAX	057,080,120
PHILCO	050
PHILIPS	050,077,096,125
PILOT	052
PIONEER	073,082
PORTLAND	035
PULSAR	054
QUARTZ	061
QUASAR	050,092,111
RADIO SHACK	015,052
RCA	050,057,080,092,111,120, 164,217
RCA UNIFIED	075
REALISTIC	015,050,052,061,062,063, 077,081,119,255
RICOH	049
RUNCO	054
SAMSUNG	060,068,255
SANSUI	056,082,097,286
SANYO	061,062,119,255
SCOTT	060,136,199,225,227
SEARS	050,052,057,061,062,069, 081,119,120

VCR set-up code

Maker	Set-up code
SHARP	063,077
SHINTOM	087
SONY	047,048,049,050
STS	057
SYLVANIA	050,058,096,125
SYMPHONIC	015
TANDY	015,119
TATUNG	056
TEAC	015,056
TECHNICS	050,177
TEKNIKA	015,050,052,067
TOSHIBA	058,060,081,225,227
TOTEVISION	052,255
UNITECH	255
VECTOR RESEARCH	053,055
VICTOR	023,056,082
VIDEO CONCEPTS	055,076
VIDEOSONIC	255
WARDS	015,050,057,062,063,077, 087,164,227,255
YAMAHA	053,056
ZENITH	048,049,054

LD set-up code

Maker	Set-up code
AIWA	218
CARVER	079
DENON	187
FUNAI	218
GOLDSTAR	187
KENWOOD	251,273
MAGNAVOX	079,232,256
MARANTZ	079
MITSUBISHI	074
NAD	074
PANASONIC	219,245
PHILIPS	079
PIONEER	074
RCA	366
REALISTIC	218
SHARP	016
SONY	208,216
YAMAHA	232

TV set-up code

Maker	Set-up code
A-MARK	018
ADMIRAL	108
AIKO	107
AKAI	045,113
ANAM	018,019,195
ANAM NATIONAL	070
AOC	018,034,045,067,152,200
ARCHER	018
AUDIOVOX	018,195
BELL & HOWELL	031,169
CANDLE	045,061,071,201
CAPEHART	067
CAPETRONIC	018,045
CARVER	069
CITIZEN	045,054,061,063,071,075, 107,201,295
CONCERTO	071
CONTEC	173,195,200
CRAIG	195
CROWN	054,063,195
CURTIS MATHES	045,054,063,075
CXC	195
DAEWOO	034,054,063,106,107,406,466
DAYTRON	054,063
DYNATECH	064
EMERSON	173,192,193,194,195,196,197, 198,200,251,285,295,297,478
ENVISION	045
FISHER	169,174
FORTRESS	108
FUJITSU	194
FUNAI	194,195
FUTURETECH	195
GE	036,042,044,062,066,070, 189,193,297
GENERAL	201
GOLDSTAR	016,017,034,045,054,063, 071,121,193
HALLMARK	193

Maker	Set-up code
HITACHI	053,071,110,112,160,166, 188,242
INFINITY	069
JBL	069
JENSEN	065
JVC	051,068,197
KAMP	231
KAWASHO	231,323
KENWOOD	045
KLOSS	039,061
KMC	121
KTV	054,063,195,200,232,295
LOGIK	031
LUXMAN	071
LXI	062,069,163,169,171
MAGNAVOX	035,039,043,045,069,111, 201,202
MARANTZ	045,069
MATSUI	232
MATSUSHITA	066,265
MEMOREX	031,169,193
MGA	034,045,165,170,193
MITSUBISHI	034,113,165,170,193
MTC	034,045,064,071,075,106,200
MULTITECH	064,232
NAD	171,181
NEC	034,045,051,071,185
NICAMAGIC	231
NIKKO	045,107,332
ONWA	195
OPTONICA	108,180
ORION	251
PANASONIC	066,069,070,177,265,353
PENNEY	017,033,034,036,045,047,054, 062,063,075,125,150,164,171
PENNY	066
PHILCO	034,035,039,043,045,069, 201,202
PHILIPS	015,069

TV set-up code

Maker	Set-up code
PIONEER	053,181
PORTLAND	034,054,063,107
PROTON	046,054,063,067,193
PULSAR	032
QUASAR	066,070,265
RADIO SHACK	047,180,195
RCA	033,034,044,053,150,189,412
RCA UNIFIED	062
REALISTIC	169
RHAPSODY	231
RUNCO	032,045
SAMPO	045,067,115,125
SAMSUNG	034,045,047,054,063,071,075
SANYO	161,169,174
SCOTT	194,195,251
SEARS	062,069,071,161,163,164, 169,171,174,186,193,194
SHARP	108,180
SIGNATURE	031
SONY	015,026,095,126,288
SOUNDESIGN	193,195,201
SPECTRICON	018,152
SSS	034,195
STARLITE	195
SUPRE-MACY	061
SYLVANIA	035,039,043,045,069,080, 201,202
SYMPHONIC	186
TANDY	054,063,108,233
TATUNG	018,064,070
TECHNICS	066,265
TECHWOOD	071
TEKNIKA	031,034,054,063,071,075, 107,165,194,195,201,327,337
TERA	046
TMK	071,193
TOSHIBA	051,075,164,169,171
TOSONIC	200
TOTEVISION	054,063

Maker	Set-up code
ULTRA	406
UNIVERSAL	036,042
VECTOR RESEARCH	045
VICTOR	051,068,265
VIDEO CONCEPTS	113
VIDTECH	034,193
VIKING	061
WARDS	031,034,035,036,042,043, 044,045,069,071,111,180, 189,193,194,202
YAMAHA	034,045
ZENITH	031,032
ZONDA	018

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CABLE set-up code

Maker	Set-up code
ABC	022,026,028,032
ANTRONIX	222
ARCHER	054,168,222
CENTURY	168
CITIZEN	168
COLOUR VOICE	040,046
COMBAND	247,248
COMTRONICS	055,075
CONTEC	034
EASTERN	017
ELECTRICORD	093
GARRARD	168
GC ELECTRONICS	222
GE	247,248
GEMINI	030,072,085,257
GENERAL INSTRUMENT	026
HAMLIN	024,035,049,274,288
HITACHI	026
JASCO	168
JERROLD	018,026,027,029,030,039, 041,062,113,291
MACOM	048
MAGNAVOX	042
MEMOREX	015
MOVIE TIME	078,093,171
NORTHCOAST	329
NSC	078,085,171
OAK	022,034,263
PANASONIC	036,122
PARAGON	015
PHILIPS	040,042,043,044,045,046, 075,168,305
PHILIPS ECG	257
PIONEER	038,159,275
POPULAR MECHANICS	415
PULSAR	015
RCA	036
REALISTIC	222
REGAL	035,274,288,294

Maker	Set-up code
REGENCY	017
REMBRANDT	085
RUNCO	015
SAMSUNG	055,159
SCIENTIFIC ATLANTA	021,023,032,292,342
SIGNAL	030,055
SIGNATURE	026
SL MARX	055
SPRUCER	036,322
STANDARD COMPONENTS	111
STARCOM	018,030,062,113
STARGATE	030,055
SYLVANIA	016
TANDY	273
TATUNG	112
TEKNIKA	161
TELECAPTION	236
TEXSCAN	016,111
TOCOM	027,028,074
TOSHIBA	015
TV86	078
UNIKA	168,222
UNITED ARTISTS	022
UNITED CABLE	018
UNIVERSAL	054,092,093,168,206,222,337
VIDEOWAY	265
VIDTECH	259
VIEWSTAR	042,075,078,226,273,304
ZENITH	015,069

Specifications

⚠ Caution : Read this page carefully to ensure safe operation.

For the U.S.A., Mexico and Canada

Audio section

Rated power output at the STEREO operation

120 watts per channel minimum RMS, both channels driven at 8 Ω, from 20 Hz to 20,000 Hz with no more than 0.06 % total harmonic distortion (FTC)

Power output at the Surround operation

Front	(1 kHz, 0.7 % T.H.D. at 8 Ω)	100 W + 100 W
Center	(1 kHz, 0.7 % T.H.D. at 8 Ω)	100 W
Rear	(1 kHz, 0.7 % T.H.D. at 8 Ω)	50 W + 50 W

Total harmonic distortion (1 kHz, 8 Ω)	0.01 % at 60 W
Frequency response	12 Hz ~ 70 kHz, + 0 dB, – 3 dB
Signal to noise ratio (IHF A)	
PHONO (MM)	75 dB
CD	98 dB
Input sensitivity / impedance	
PHONO (MM)	2.5 mV / 47 kΩ
CD	200 mV / 47 kΩ
Output level / impedance	
SUB WOOFER	2.0 V / 600 Ω
Tone controls	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)
N.B. Circuit	+ 9 dB (70 Hz)

Video section

VIDEO inputs / outputs (Composite)	1 Vp-p / 75 Ω

FM Tuner section

Tuning frequency range	87.5 MHz ~ 108 MHz
Usable sensitivity (IHF)	13.2 dBf (1.2 μV at 75 Ω)
50 dB quieting sensitivity	
STEREO	41.2 dBf (32 μV at 75 Ω)
Total harmonic distortion at 1 kHz	
MONO	0.6 %
STEREO	0.7 %
Signal to noise ratio at 65 dBf (IHF)	
MONO	75 dB
STEREO	68 dB
Selectivity (IHF ±400 kHz)	50 dB
Stereo separation (IHF at 1 kHz)	40 dB
Frequency response	30 Hz ~15 kHz, + 0.5 dB, – 3.0 dB

AM Tuner section

Tuning frequency range	530 kHz ~ 1,700 kHz
Usable sensitivity	12 μV / (500 μV / m)
Total harmonic distortion	0.7 %
Signal to noise ratio	48 dB
Selectivity	30 dB

General

Power consumption		4 A
AC outlet		
SWITCHED		2: (total 200 W, 1.6 A max.)
Dimensions	W:440 mm	(17-5/16″)
	H:166 mm	(6-9/16″)
	D:404 mm	(15-7/8″)
Weight (net)		13 kg (28.7 lb)

Note

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Specifications

⚠ Caution : Read this page carefully to ensure safe operation.

For other countries

Audio section

Rated power output at the STEREO operation
(EIAJ) 1 kHz, 10 % T.H.D., at 8 Ω ..... 147 W + 147 W
(DIN/IEC) from 63 Hz to 12,500 Hz,
0.7 % T.H.D., at 8 Ω ..... 120 W + 120 W

Power output at the Surround operation
Front (1 kHz, 0.7 % T.H.D. at 8 Ω) ..... 100 W + 100 W
Center (1 kHz, 0.7 % T.H.D. at 8 Ω) ..... 100 W
Rear (1 kHz, 0.7 % T.H.D. at 8 Ω) ..... 50 W + 50 W

Total harmonic distortion ..... (1 kHz, 8 Ω) 0.01 % at 60 W
Frequency response ..... 12 Hz ~ 70 kHz, + 0 dB, – 3 dB
Signal to noise ratio (IHF'66)
PHONO (MM) ..... 75 dB
CD ..... 98 dB
Input sensitivity / impedance
PHONO (MM) ..... 2.5 mV / 47 kΩ
CD ..... 200 mV / 47kΩ
Output level / impedance
SUB WOOFER ..... 2.0 V / 600 Ω
Tone controls
BASS ..... ± 10 dB (at 100 Hz)
TREBLE ..... ± 10 dB (at 10 kHz)
N.B. Circuit ..... + 9 dB (70 Hz)

Video section

VIDEO inputs / outputs (Composite) ..... 1 Vp-p / 75 Ω

FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (IHF) ..... 13.2 dBf (1.2 μV at 75 Ω)
50 dB quieting sensitivity
STEREO ..... 41.2 dBf (32 μV at 75 Ω)
Total harmonic distortion at 1 kHz
MONO ..... 0.6 %
STEREO ..... 0.7 %
Signal to noise ratio at 65 dBf (IHF)
MONO ..... 75 dB
STEREO ..... 68 dB
Selectivity (IHF ± 400 kHz) ..... 50 dB
Stereo separation (IHF at 1 kHz) ..... 40 dB
Frequency response ..... 30 Hz ~ 15 kHz, + 0.5 dB, – 3.0 dB

AM Tuner section

Tuning frequency range
9 kHz ..... 531 kHz ~ 1,602 kHz
10 kHz ..... 530 kHz ~ 1,610 kHz
Usable sensitivity ..... 12 μV / (500 μV / m)
Total harmonic distortion ..... 0.7 %
Signal to noise ratio ..... 48 dB
Selectivity ..... 30 dB

General

Power consumption ..... 400 W
AC outlet
SWITCHED ..... 2: (total 90 W max.)
(Except for Australia)
Dimensions ..... W:440 mm
H:166 mm
D:404 mm
Weight (net) ..... 13 kg

Note

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.